

Description of additional supplementary files

- Supplementary Movie 1: Assembly of actin filaments. Actin filament polymerization in the presence of 0.6 μ M actin Alexa-647 labeled, followed by TIRFM. Note that the filaments drift and collide without fusing into bundles. Related Figure 5.
- Supplementary Movie 2: Vinculin 5M mediates stable bundling of actin filaments in the absence of VBS1. Actin polymerization and bundling in the presence of 0.6 μ M actin Alexa-647 labeled, 500 nM of the indicated vinculin variant, followed by TIRFM. Related Figure 5
- Supplementary Movie 3: Vinculin 5M induces increased bundling of actin filaments when supplemented with 1 μ M VBS1. Actin polymerization and bundling in the presence of 0.6 μ M actin Alexa-647 labeled, 350 nM of the indicated vinculin variant, and 1 μ M talin-VBS1, followed by TIRFM. Related Figure 5
- Supplementary Movie 4: Vinculin 5M mediates higher degree of actin bundling in the presence of 2 μ M VBS1. Actin polymerization and bundling in the presence of 0.6 μ M actin Alexa-647 labeled, 350 nM of each vinculin variant, and 2 μ M talin-VBS1, followed by TIRFM. Related Figure 5
- Supplementary Movie 5: Vinculin 5M activation by VBS1 is more efficient than vinculin 4M and the WT. Actin polymerization and bundling in the presence of 0.6 μ M actin Alexa-647 labeled, 350 nM of vinculin WT or V4M, and 4 μ M talin-VBS1, while 350 nM of vinculin V5M with 2 μ M talin-VBS1 yields thicker bundles, followed by TIRFM. Related Figure 5